From	To
George Robin/R9/USEPA/US	"Hiestand, Rob" <hiestrw@chevron.com>
CC	**BCC**
"Johnson, Dale A" <dajohnson@sycamore.com> "Smith, Darren" <DarrenSmith@chevron.com> "Iriart, Jon R" <jririart@sycamore.com> Michele Dermer/R9/USEPA/US@EPA R9-Deep	
Subject	**Date/Time**
RE: Sunrise Testing for Week Sept. 24th	09/11/2012 11:17 AM

Item Body

Ok Rob, we'll see you all then. Thanks.

George

"Hiestand, Rob" ---09/11/2012 10:49:07 AM---George, I plan to be available during the testing days to turn this over to Jon since I am still loc

From: "Hiestand, Rob" <hiestrw@chevron.com>
To: George Robin/R9/USEPA/US@EPA, "Iriart, Jon R" <jririart@sycamore.com>
Cc: "Johnson, Dale A" <dajohnson@sycamore.com>, "Smith, Darren" <DarrenSmith@chevron.com>
Date: 09/11/2012 10:49 AM
Subject: RE: Sunrise Testing for Week Sept. 24th

George,

I plan to be available during the testing days to turn this over to Jon since I am still located in Bakersfield. The plan is the same as previous years as follows:

Tuesday morning ~ 7 a.m. drop the pressure bomb into WW3 for a 24hour soak.
Wednesday morning ~ 8 a.m. remove the pressure bomb from WW3.
Wednesday morning ~ 7 a.m. start RA tracer survey on A72TR followed by B122, WW3 and WW4 through Thursday as time permits.

Let me know if you have any questions.

Thanks,

Rob Hiestand, PSC Operations Engineer
SJVBU Cogen Team Support

Chevron Global Power Company, Power Support Center
9525 Camino Media C1058
Bakersfield, CA 93311
Tel 661-654-7787 Cell 661-303-7923
hies@chevron.com

From: George Robin [mailto:Robin.George@epamail.epa.gov]

Sent: Tuesday, September 11, 2012 10:44 AM

To: Iriart, Jon R

Cc: Johnson, Dale A; Smith, Darren; Hiestand, Rob

Subject: RE: Sunrise Testing for Week Sept. 24th

Yes Jon, that is correct.

I also just left a voice mail message to confirm that week of Sept. 24th. We should also discuss this on a call. Let me know which time(s) will be convenient for you.

You may know this but I will be trying to witness as much as possible with your facility as well as those at Elk Hills and La Paloma (I may have additional engagements that week too). I will be interested in your approximate schedule so that I can have an advance, tentative driving/ witnessing plan.

Looking forward to meeting you.

George Robin

Engineer

Underground Injection Control program

415-972-3532 ofc

From: "Iriart, Jon R" <jririart@sycamore.com>

To: George Robin/R9/USEPA/US@EPA

Cc: "Smith, Darren" <DarrenSmith@chevron.com>, "Johnson, Dale A" <dajohnson@sycamore.com>, "Hiestand, Rob (HIES@chevron.com)" <HIES@chevron.com>

Date: 09/11/2012 10:28 AM

Subject: RE: Sunrise Technical Review Request for Information

George,

I wanted to let you know that we are currently in the process of gathering the information you requested. I also wanted to verify with you that the annual testing is still scheduled for the week of Sept 24th correct?

Jon R. Iriart
Regulatory Compliance- CA Partnerships

Ph: (661) 615-4604 Cel: (661) 203-8427

Fax: (661) 615-4610

jririart@sycamore.com

From: George Robin [mailto:Robin.George@epamail.epa.gov]

Sent: Friday, September 07, 2012 2:21 PM

To: Iriart, Jon R

Cc: David Albright

Subject: Re: Sunrise Technical Review Request for Information

Hi Jon,

Please see the attached scanned copy of the letter that went out in the mail today.

To address your questions from your previous message below, in short, a complete new application for a new 10-year permit must be submitted. Therefore, a referral to previous records, etc. is not acceptable. Yes, this means some duplicative aspect is involved where necessary. However, in some ways the second application should be more straightforward - with less speculation, extrapolation, etc. because of proven historical data and operations. We took your questions into account and edited our originally submitted Tech Review that was emailed.

Please examine the attachment and let me know when you would like for us to arrange to discuss over the phone initially.

George Robin

Engineer

Ground Water Office

Underground Injection Control program

415-972-3532 ofc

From: "Iriart, Jon R" <jririart@sycamore.com>

To: George Robin/R9/USEPA/US@EPA

Date: 09/05/2012 03:08 PM

Subject: FW: Sunrise Technical Review Request for Information

George, I haven't received a response to the email below, so I wanted to follow up. Any help?

Jon R. Iriart
Regulatory Compliance- CA Partnerships

Ph: (661) 615-4604 Cel: (661) 203-8427

Fax: (661) 615-4610

jririart@sycamore.com

From: Iriart, Jon R

Sent: Monday, August 20, 2012 3:17 PM

To: 'George Robin'

Cc: Hiestand, Rob (HIES@chevron.com)

Subject: RE: Sunrise Technical Review Request for Information

George,
I am going through each line item seen below in an attempt to gather the necessary information from your request ASAP. I noticed that Items 1, 2, 3, 4, and 7 have already been submitted to you previously (in Quarterly or Annual Reports, or following completion of the work). Can you please verify this and/or provide some clarification as to why I need to re-submit these documents? Also, since I'm new to the UIC field some of the language is unclear to me (Items 5 and 6 more specifically), so could you please provide further details on these items for assistance?

I appreciate your help, thanks.

Jon R. Iriart
Regulatory Compliance- CA Partnerships

Ph: (661) 615-4604 Cel: (661) 203-8427

Fax: (661) 615-4610

jririart@sycamore.com

Daniel,

Please recall this Request that was sent. I have no records that you responded either electronically nor hard copies (2).

Please immediately respond and call me regarding your permit renewal application and the required information. We need to resolve this as soon as possible.

I can be reached at 415-972-3532, ofc.

George Robin

Engineer

Sunrise Power Company, LLC Permit Application

Additional Information Required to Complete the Technical Review

The technical review is in progress, but additional information is needed from the Applicant before it can be completed. Below are items needed to complete the review and analysis of the application:

1. Falloff test data and results.

2. Monitoring well pressure data and history and location on maps.

3. Results of MITs and injection profile surveys.

4. Open hole and cased hole logs for the permitted injection wells and any reservoir pressure data in WW3 And WW4 when drilled and/or later.

5. Step-rate test data and reports.

6. Injectate fluid analysis reports for the past four quarters.

7. P&A report for the A72T well.

8. Show the location of the A72TR replacement well on the maps in relation to the A72T well. Provide the well record and as-built schematic for the A72TR well.

9. Attachment A, Area of Review Methods:
Provide the calculations of average porosity and net thickness from logs and cores used to map pore volume in AOR. How was average porosity and net thickness of the injection zone determined? That determination is not fully described in the application. The Campbell reference is cited for the porosity and permeability data, but it lacks the specifics for the basis of those determinations.

Please provide clarification for Table A-1, "Conservative Projections of Injection Volumes by Well". What is the basis for the volumes listed in the table and how do those volumes relate to the "Projected Radius of Injection Front by Well" in Table A-2?

10. Attachment H. Operating Data:

This attachment should include the proposed daily injection rates, volumes, and pressures, both average and maximum values, and information on the nature of annulus fluid. Please provide those values.

Table H-1: Annular pressures indicate a lack of mechanical integrity in three of the four wells. Please clarify whether that is the case or not and whether actions were taken to restore integrity. Please add the units of injection pressure, injection rate, temperature, and volumes injected to the table heading.

11. Formation Testing Program:

Describe how reservoir pressure will be measured if fluids are present in WW5 and WW6? Was fluid present in WW3 and WW4 when drilled and were samples obtained? Are there any pressure data or core data available for those wells? Is so, please provide those data. Describe how injectivity testing and pressure monitoring will be performed prior to injection operations in WW5 and WW6. Does this include step-rate testing for formation fracture gradient? Were step-rate tests (SRT) performed in the existing wells? If so, please provide the SRT data and reports for those wells.

12. Stimulation Program:

Describe how "air entrainment" will be avoided in the initial stages of injection in WW5 and WW6. How was it avoided in past injection well completions in the Upper Tulare Formation?

13. Construction Procedure:

Where is the nearest USDW (TDS of 10,000 mg/l or less) formation(s) located laterally from these wells. Describe the annulus fluid to be utilized in more detail. Are there any water supply or drinking water wells located within the AOR? Is so, please identify and provide the depth, source aquifer, TDS content, and location of those wells.

14. Construction Details:

Provide well schematics for the four existing injection wells that depict the as-built construction with actual depths of wellbore equipment and perforations or liners and volumes and type of cement used in the construction. The well schematics presented in Attachment M of the application show perforations rather than the slotted liners in five of the six wells described in the narrative discussion. In addition, the well schematics indicate approximate depths rather than actual depths of perforations, packer, etc. Also, please add a well schematic and plugging and abandonment report for the A72T well.

15. Monitoring Plan:

Please provide the graphs of pressure versus time obtained from monitoring wells since injection commenced. Provide the name, number and location of the monitoring wells on the maps provided in the application and the distance from the paired injection wells. Provide as-built well schematics of the monitoring well construction and plugging and abandonment plans.

16. Plugging and Abandonment Plan:

Provide as-built well schematics for the four existing wells and monitoring wells with actual depths of casing and perforations or liners with volumes and type of cement used in plugging the wells identified on the schematic diagrams. The application should include a completed EPA Form 7520-14, Plugging and Abandonment Plan, for each well with an estimate of the P&A cost for each well provided on the forms. The P&A estimates should be prepared such that third party well service contractors perform the work and include surface restoration expenses and contingency costs for unforeseen problems in plugging the wells.

17. Financial Assurance for Plugging and Abandonment:

The bond amounts will be reviewed to ensure that sufficient funds are available to cover the updated P&A cost estimates plus any contingency costs required by EPA. A bond should also be provided for the 30F0122 monitoring well.

18. Aquifer Exemptions:

The exempted aquifer into which injection is authorized in the EPA approval of the CDOGGR Primacy Application is the Holocene Alluvium, which is present above the Pleistocene Tulare Formation in the project area. It is listed with a *subsea depth* to the top of the exempted zone of 399 feet and a thickness of 125 to 252 feet in Table 1 of Appendix B, District 4 aquifer exemptions. Apparently, the depth to the top of the exempted zone of 399 feet is actually the depth from the ground surface (or KB reference elevation?), not subsea depth. That depth would apparently be equivalent to the top of the Upper Tulare Formation as depicted in Figure F-3, rather than the Holocene Alluvium which is at the surface in the project area. The bottom of the exempted zone is not clearly specified. Please provide clarification as to the Upper Tulare Formation interval Sunrise considers exempted in the project area.